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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/405,678 09/24/99 LABRIE

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EXAMINER

WANG, S

ART UNIT

PAPER NUMBER

1617

DATE MAILED:

04/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/405,678

Applicant(s)

LABRIE, FERNAND

Examiner

Shengjun Wang

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) 51, 54, 57, 60, 63, 66, 69, 72 and 87 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2, 39, 42, 45, 48, 75, 78, 81, 84, 90, 93, 96, 99 and 102 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7&9
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

Continuation of Disposition of Claims: Claims pending in the application are 2,39,42,45,48,51,53,54,57,60,66,69,72,75,78,81,84,87,90,93,96,99 and 102.

DETAILED ACTION

This application is a divisional application of 09/096284, filed June 11, 1998.

1. Claims 53 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, 51, 54, 57, 60, 63, 66, 69, 72 and 87 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made without traverse no paper No. 11.
2. Applicant's election without traverse of Group I, claims 2, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99 and 102 in Paper No. 11 is acknowledged.

Claim Objections

3. Claims 75 and 102 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 75 not further limit claim 72 because the R100 defined in claim 72 has at least 4 intervening atoms, wherein in claim 75 R100 has only three intervening atoms. Claim 102 further expands the scope of sex steroid precursors as defined in claim 2.

Claim Rejections 35 U.S.C. 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 1617

5. Claim 2, 39, 42, 45, 48, 75, 78, 81, 84, 90, 93, 96, 99 and 102 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Method of increasing the levels of a sex steroid precursor is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Applicant indicated in the specification that the increase of the levels of the sex steroid precursor is realized by administering the said sex steroid precursor to the patient in need. See, particularly, pages 23-36.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2, 39, 42, 45, 48, 75, 78, 81, 84, 90, 93, 96, 99 and 102 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 2 is indefinite because it is not clear how to increase the levels of a sex steroid precursor.

9. The term "modulator" recited in the claims is not clearly defined in the specification or in the claims. The term "modulator" therefore render the claims indefinite. The term "modulator" may be uinterpreted as changing the activity of the receptor by increase, decrease or both. The specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

10. The term "substantially" in claim 84 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard

Art Unit: 1617

for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The claim is indefinite as to the amount of (2R)-enantiomer.

11. Claim 96 recites limitation "an amount of a sex steroid precursor" it is not clear how this "an amount of a sex steroid precursor" is involved in the claimed method.

Claim Rejections 35 U.S.C. 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 2, 39, 42, 45, 48, 75, 78, 81, 84, 90, 93, 96, 99 and 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-David et al. (CAPLUS Abstract, AN 1967:505730) and Kelly (US Patent 5, 830,887) in view of Wojtacki et al. (CAPLUS Abstract, AN 1994:479820), Sharma et al. (J. Med. Chem. 1990, 33, pages 3222-3229) and Labrie et al. (WO 96/26201, IDS, GGG).

14. Ben-Davis teach that dehydropiandrosterone is known to have antihypercholesterolemic effect. See the abstract. Kelly teach that estrogen receptors modulator, phyto-estrogen, particular therein, are useful for estrogen related disorders including hypercholesterolemia. See, particularly, the abstract, column 2, lines 23-67.

Art Unit: 1617

15. The primary references do not teach expressly the employment of the particular compounds herein as the estrogen receptor modulator or employment of a combination of estrogen receptor modulator and a sex steroid precursor.

16. However, Labrie et al. teach that the compound elected herein is a known estrogen receptor modulator and are known to be useful for treating estrogen sensitive disease. See, particularly, the abstract, page 10, the second paragraph, page 19, the whole page and claims 2 and 4. More particularly, the preferred stereochemistry at C2 position is identical with EM 800, see page 19 and example 4 on page 33. Note Labrie does not identify the stereochemistry at C2 position. However, methods of identifying the stereochemistry of an optical active compounds are well known in the art, e.g., X-ray crystallography. Sharma et al. teaches that the compound herein has similar binding activity to tamoxifen. See, particularly, scheme 1 on page 3223, especially compound 25, and Figures 3 and 4. Further, temoxifen is known to be beneficial for lowering cholesterol. See the abstract of Wojtacki et al.

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to employ the compound (EM 1538) herein for treatment of hypercholesterolemia and further employ a combination of the compound with a known antihypercholesterol agent, such as dehydropiandrosterone.

A person of ordinary skill in the art would have been motivated to employ the compound (EM 1538) herein for treatment of hypercholesterolemia because estrogen receptor modulators with similar activity are known to be useful for treatment of hypercholesterolemia. Further, the combination of such an estrogen receptor modulator and a sex steroid precursor which is also known to be useful for treatment of hypercholesterolemia is seen to be obvious it is prima facie

Art Unit: 1617

obvious to combine two compositions each of which is taught in the prior art to be useful for same purpose in order to form third composition that is to be used for very the same purpose; idea of combining them flows logically from their having been individually taught in prior art; thus, the claimed invention which is a combination of two known antichypercholesterolemic agents sets forth prima facie obvious subject matter. See In re Kerkhoven, 205 USPQ 1069. Further, the employment of the particular salts herein, is seen to be a selection from amongst equally suitable material and as such obvious. Ex parte Winters 11 USPQ 2nd 1387 (at 1388).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang, Ph.D. whose telephone number is (703) 308-4554. The examiner can normally be reached on Monday-Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minna Moezie, J.D., can be reached on (703) 308-4612. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.



Shengjun Wang

AU 1617

March 31, 2001

RUSSELL TRAVERS
PRIMARY EXAMINER
GROUP 1200